
Network Class Of Service

The Network class of service feature (NCOS) is an integral part of network control and routing control in an ESN. NCOS provides the means to control:

- which trunk routes are eligible for access to attempt call completion
- whether or not queuing is offered to a call originator
- whether or not the originator of a network call receives a warning tone when an expensive trunk is selected to complete the call
- whether or not the user is allowed to access the Network Speed Call (NSC) feature

ESN nodes and mains can each accommodate 100 (0–99) NCOS groups with each group made up of different network-access characteristics. Once each NCOS group is defined through service change, the lines, trunks, and attendants connected directly to the switch are assigned to the NCOS group which best serves their particular requirements. The NCOS group to which they are assigned is independent of the regular class of service assigned to them. Incoming tie trunks which connect another switch (ESN main, Conventional main, ETN switch) to the ESN node are also assigned to an NCOS group which determines their level of access to the network facilities at the ESN node.

Note: Pre X11 Release 13, a ESN node can accommodate 16 (0–15) NCOS groups.

Facility Restriction Level

Included as part of each NCOS group is a Facility Restriction Level (FRL) number which ranges from 0 (low-privilege) to 7 (high-privilege). The FRL is used by the software to determine the alternate route selection choices available for specific network call attempts by members of an NCOS group.

For example, a user assigned in an NCOS group having an FRL of 3 would be allowed access only to alternate route selection choices assigned an FRL of 3 or less; access to trunks with an FRL greater than 3 would be denied. Thus, by assigning low-privilege network users to an NCOS group having a low FRL, and high-privilege network users to an NCOS group having a higher FRL, the customer can control access to all network facilities.

Expensive Route Warning Tone

In some instances, expensive trunk routes can be assigned to an NCOS group with an FRL which would allow them to be accessed by certain network users. When this occurs, the originator of the network call may be sent an optional Expensive Route Warning Tone (ERWT).

The ERWT tone alerts the caller that an expensive route has been selected to complete the call, and provides the caller with the option of either accepting or rejecting the call before it is completed over the expensive route. Eligibility for ERWT is allowed or denied to individual lines and incoming trunk groups on an NCOS group basis.

Queuing

Each NCOS group also defines whether or not the various queuing features are available to lines or trunks assigned to the group.